THREE-DIMENSIONAL VIDEO BROADCASTING SYSTEM

ABSTRACT

A 3D video broadcasting system includes a video stream
5   compressor used to generate a base stream and an
enhancement stream using a base stream encoder and an
enhancement stream encoder, respectively. The base stream
includes either right view images or left view images, and
is encoded and decoded independently of the enhancement
10   stream using MPEG-2 standard. The enhancement stream
includes the view images not included in the base stream,
and is dependent upon the base stream for encoding and
decoding. The base stream encoder provides I-pictures to
the enhancement stream encoder for disparity estimation and
15   compensation during bi-directional encoding and decoding of
the enhancement stream. In addition, for bi-directional
encoding and decoding, decoded enhancement stream pictures
are used for motion estimation and compensation. The video
stream compressor can be used to compress right and left
20   view video streams from two video cameras or from a single
video camera generated using a 3D lens system.